

For: Event Booking Mechanism

## Date \_\_\_\_\_

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**I. REAL PARTY IN INTEREST**

As evidenced by the assignment recorded at Reel/Frame 011082/0363, the subject application is owned by OpenTV, Inc., a corporation organized and existing under and by virtue of the laws of the State of Delaware, and now having its principal place of business at 275 Sacramento Street, San Francisco, CA 94111.

**II. RELATED APPEALS AND INTERFERENCES**

No other appeals, interferences or judicial proceedings are known which would be related to, directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

### **III. STATUS OF CLAIMS**

Claims 1-9, 11-25 and 27-29 are pending and rejected, and are the subject of this appeal. A copy of claims 1-9, 11-25 and 27-29 as on appeal is included in the Claims Appendix hereto.

**IV. STATUS OF AMENDMEMNTS**

No amendments to the claims have been submitted subsequent to the final rejection.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

The subject matter of the present claims generally relates booking events and initiating actions in response to detecting these events in a broadcast television receiver.

Claim 1 recites a system for booking events and initiating actions corresponding to the events. The system includes an event broker 30 configured to register a plurality of event bookings in response to requests from one or more clients 33, wherein each said event booking identifies an event which may occur in the future and an action to be taken should the identified event occur. (page 2, lines 23-25; page 8, lines 19+). The system further includes one or more event managers 31, wherein each of said one or more event managers is configured to detect particular types of events. (page 10, line 20). The system also includes one or more action handlers 32, wherein each of said one or more action handlers is configured to initiate particular types of actions. (page 6, lines 24-29). Each of said event broker, said clients, said event managers, and said action handlers comprise distinct functional entities. (FIG. 3). A first event manager of the event managers is configured to notify the event broker of a first event which corresponds to a first event booking, in response to detecting said first event. The event broker is configured to notify a first action handler which corresponds to the first event booking, in response to receiving notification from the first event manager of the detected first event; and the first action handler is configured to initiate a first action, in response to receiving notification from the event broker of the detected first event. (FIG. 7; page 15). The first request includes a description of the first event using a syntax which is unintelligible to the event broker, but which is intelligible to a first event manager of the event managers (page 9, lines 17-18), wherein subsequent to receiving notice of said event booking, the first event manager is configured to determine whether the event booking will be accepted by said first event manager, and provide a positive acknowledgement to said event broker in response to determining said event booking is accepted. (FIG. 7; page 15).

Claim 15 recites a method for brokering and managing event bookings. The method receiving a request from a client for an event booking at an event broker, wherein said request identifies a first event which may occur in the future and a first action to be taken upon occurrence of said first event. (page 2, lines 23-25; page 8, lines 19+). Registering the event booking request, wherein said event broker notifies a first event manager corresponding to said first event, and notifies a first action handler corresponding to said first action, wherein said event broker, said client, said first event manager, and said first action handler comprise distinct functional entities. (FIG. 7; page 15; FIG. 3). The method further includes detecting said first event by said first event manager; said first event manager notifying said event broker of said detection of said first event; said event broker providing notification to said first action handler of said detection of said first event; and initiating said first action by said first action handler in response to detecting said notification from said event broker. (FIG. 7; page 15). The request includes a description of the first event using a syntax which is unintelligible to the event broker, but which is intelligible to the first event manager (page 9, lines 17-18), wherein subsequent to receiving notice of said event booking from said mechanism, said first event manager is configured to determine whether said event booking will be accepted by said first event manager, and provide a positive acknowledgement to said event broker in response to determining said event booking is accepted. (FIG. 7; page 15).

Claim 22 recites a device 20 comprising a signal receiver 21 configured to receive a broadcast signal; a first event manager 31, wherein said first event manager is configured to detect particular types of events; a first action handler 32, wherein said first action handler is configured to initiate particular types of actions; and an event broker mechanism 30. The event broker mechanism is configured to register a plurality of event bookings in response to requests from one or more clients 33, wherein each said event booking identifies an event which may occur in the future and an action to be taken should the identified event occur. (page 2, lines 23-25; page 8, lines 19+). The system

further includes one or more event managers 31, wherein each of said one or more event managers is configured to detect particular types of events. (page 10, line 20). The system also includes one or more action handlers 32, wherein each of said one or more action handlers is configured to initiate particular types of actions. (page 6, lines 24-29). Each of said event broker, said clients, said event managers, and said action handlers comprise distinct functional entities. (FIG. 3). A first event manager of the event managers is configured to notify the event broker of a first event which corresponds to a first event booking, in response to detecting said first event. The event broker is configured to notify a first action handler which corresponds to the first event booking, in response to receiving notification from the first event manager of the detected first event; and the first action handler is configured to initiate a first action, in response to receiving notification from the event broker of the detected first event. (FIG. 7; page 15). The first request includes a description of the first event using a syntax which is unintelligible to the event broker, but which is intelligible to a first event manager of the event managers (page 9, lines 17-18), wherein subsequent to receiving notice of said event booking, the first event manager is configured to determine whether the event booking will be accepted by said first event manager, and provide a positive acknowledgement to said event broker in response to determining said event booking is accepted. (FIG. 7; page 15).



**VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

1. Claims 1-2, 4, 7-9, 12-15, and 17-21 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over newly cited U.S. Patent No. 6,446,136 (hereinafter “Pohlmann”), in view of U.S. Patent No. 6,598,169 (hereinafter “Warwick”). In addition, claims 1, 5, 22-25 and 28-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,699,107 (hereinafter “Lawler”) in view of Pohlmann, further in view of Warwick. Claims 3 and 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lawler, in view of Pohlmann, in view of Warwick, and in view of U.S. Patent No. 6,108,695 (hereinafter “Chawla”). Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Pohlmann in view of Warwick and in view of U.S. Patent No. 6,636,901 (hereinafter “Sudhakaran”). Claim 21 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Pohlmann in view of Warwick in view of U.S. Patent Publication 2003/0159150. Finally, claim 27 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Lawler, in view of Pohlmann, in view of Warwick and in view of Sudhakaran.

## **VII. ARGUMENT**

Claims 1-2, 4, 7-9, 12-15, and 17-21 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over newly cited U.S. Patent No. 6,446,136 (hereinafter “Pohlmann”), in view of U.S. Patent No. 6,598,169 (hereinafter “Warwick”). In addition, claims 1, 5, 22-25 and 28-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,699,107 (hereinafter “Lawler”) in view of Pohlmann, further in view of Warwick.

Applicant submits that at least each of independent claims 1, 15 and 22 recite a combination of features neither disclosed nor suggested by the cited art.

Claim 1 recites features including “an event broker configured to register a plurality of event bookings in response to requests from . . . clients”, one or more “event managers . . . configured to detect particular types of events”, and one or more “action handlers . . . configured to initiate particular types of actions.” In paragraph 3 of the final Office Action dated February 23, 2007, the examiner equates Pohlmann’s event correlator 413 (also 330) with the recited broker, Pohlmann’s event manager 310 with the recited event managers, and Pohlmann’s response engine 350 with the recited action handler. However, as discussed below, even were one to assume such equivalences, the remainder of the examiner’s arguments do not hold up upon further scrutiny.

For example, claim 1 recites that the event broker is configured to register event bookings in response to requests from one or more clients. Given the equivalences proffered by the examiner, Pohlmann would have to disclose the event correlator (413, 330) (which the examiner equates with the recited event broker) is configured to register event bookings in response to requests from clients. However, Pohlmann does not disclose such features. In the Office Action, the examiner cites column 5, lines 3-26, of Pohlmann as disclosing the above features. However, nowhere does this citation disclose

the event correlator 413 is configured to register event bookings in response to requests from one or more clients as suggested. For convenience, the cited disclosure is reproduced in its entirety below:

“As shown in FIG. 4, the event manager 402 of node a 401 and the event manager 411 of node b 410 also receive event information from the event correlator 413 of node b 410. The event manager 411 of node b 410 also provides events to the event correlator 413 on node b. The event manager 411 also receives event information from point product 415, where events are actually occurring. Event manager 402, 411 maintains, for example, the events and their associated state and a list of subscriptions. Each event manager may have a local memory data store, e.g., a blackboard, where statefull events are stored. The blackboard may be kept persistent in a file based storage, for recovery of the information across generations (process invocation of the event manager). The clients subscribing to events are responsible for reestablishing the respective subscriptions across new invocations of the event manager. Accordingly, the subscriptions may be maintained in memory. The local event archive is maintained for all the events received by the event manager. The event management system of the present invention also may correlate events from multiple nodes. In an exemplary embodiment of the present invention, the event management system provides views of events consolidated to single management stations or in views/categories that cross node boundaries.” (Pohlmann, col. 5, lines 3-26).

As seen from the above, Pohlmann clearly describes the event correlator as being configured to receive or convey event information. In addition, Pohlmann discloses the event correlator may implement an alarm rule. (e.g., see col. 7, lines 51-53). However, nowhere does Pohlmann disclose the event correlator is “configured to register a plurality of event bookings in response to requests from one or more clients, wherein each said event booking identifies an event which may occur in the future and an action to be taken should the identified event occur.” Neither does the remaining cited art disclose such features. It is noted that each of the separate rejections of claim 1 (paragraphs 3 and 4) depend upon Pohlmann in the manner discussed above. Therefore, for at least these reasons, not all the features of claim 1 are disclosed or suggested by the combination of

cited art, and a prima facie case of obviousness has not been established. The comments above similarly apply to independent claims 15 and 22.

Further, in the Office Action the examiner equates Pohlmann's disclosed subscription request as being equivalent to the recited event booking. However, Applicant disagrees. Claim 1 recites "each said event booking identifies an event which may occur in the future and an action to be taken should the identified event occur." Again, the examiner cites the same disclosure discussed above (col. 5, lines 3-26) as disclosing these features. However, nowhere does this cited portion disclose "a first request . . . for an event booking" which identifies (1) a first event which may occur in the future; and (2) a first action to be taken upon occurrence of said first event as recited. Rather, Pohlmann discloses a system wherein an event manager 411 receives a subscription request for an event, and forwards matching events to the subscriber of the event.

In addition to the above disclosure, Pohlmann discloses:

"When a subscription is made for an event such as, for example, an event occurring at a point product 415, a subscription request is sent to event manager 411 on node b 410. The event manager 411 receives the request and adds this request to its list of outstanding requests which may be stored, for example, in memory. The event manager 411 checks outstanding events previously stored, for example, in a blackboard, to see if it matches the request criteria. Each matching event is forwarded, e.g., published, to the requester, e.g., the subscriber of the event. Any new events which are received and match the subscription criteria are also forwarded. This may continue until the subscription is canceled." (Pohlmann, col. 5, lines 39-52).

Therefore, Pohlmann does not disclose the event booking in the manner recited. Neither does the remaining cited art disclose such features. For at least these additional reasons, each of the independent claims are patentably distinguishable from the cited art, taken either singly or in combination.

Further, Applicant submits one would not be motivated to modify Pohlmann as suggested by the examiner. In the present Office Action, the examiner admits that Pohlmann fails to disclose or suggest the features “wherein the first request includes a description of the first event using a syntax which is unintelligible to the event broker.” Warwick is then cited as disclosing such features and it is stated that one would have been motivated to modify Pohlmann with the recited unintelligible request. However, Applicant disagrees. Pohlmann discloses “a need exists for an integrated system for providing tools that utilize a compatible interface without significantly sacrificing tool functionality. . . . An object of the present invention is providing an integrated system for monitoring events occurring in point products through a common event management system.” Applicant submits one would not be motivated to change Pohlmann from a system which utilizes intelligible requests to one which uses unintelligible requests from clients. Therefore, even if the cited references disclosed all of the features of the claims as suggested, one would not be motivated to make the combination as suggested.

**Conclusion**

For the foregoing reasons, it is submitted that the Examiner's rejection of claims 1-9, 11-25 and 27-29 was improper, and reversal of the examiner's decision is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above referenced application from becoming abandoned, Applicant hereby petitions for such an extension. the Commissioner is hereby authorized to charge any fees which may be required to Deposit Account No. 501505/5266-02600/RDR.

Respectfully submitted,

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## **VIII. CLAIMS APPENDIX**

The claims on appeal are as follows.

1. (Previously Presented) A system for booking events and initiating actions corresponding to said events, said system comprising:

an event broker configured to register a plurality of event bookings in response to requests from one or more clients, wherein each said event booking identifies an event which may occur in the future and an action to be taken should the identified event occur;

one or more event managers, wherein each of said one or more event managers is configured to detect particular types of events; and

one or more action handlers, wherein each of said one or more action handlers is configured to initiate particular types of actions;

wherein each of said event broker, said clients, said event managers, and said action handlers comprise distinct functional entities;

wherein a first event manager of said one or more event managers is configured to notify said event broker of a first event which corresponds to a first event booking, in response to detecting said first event;

wherein the event broker is configured to notify a first action handler which corresponds to the first event booking, in response to receiving notification from the first event manager of the detected first event; and

wherein the first action handler is configured to initiate a first action, in response to receiving notification from the event broker of the detected first event;

wherein a first request of the requests for an event booking identifies a first event which may occur in the future and a first action to be taken upon occurrence of said first event, wherein the first request includes a description of the first event using a syntax which is unintelligible to the event broker, but which is intelligible to a first event manager of the event managers, wherein subsequent to receiving notice of said event booking, said first event manager is configured to determine whether said event booking will be accepted by said first event manager, and provide a positive acknowledgement to said event broker in response to determining said event booking is accepted.

2. (Previously Presented) The system of claim 1 wherein said first event manager is not configured to communicate directly with said first action handler.
3. (Previously Presented) The system of claim 1 wherein said system is implemented as a framework in a receiver for a broadcast system comprising a software layer between an application layer and a driver layer.
4. (Previously Presented) The system of claim 1, wherein in response to receiving a request to register said first event booking, said event broker is configured to:

identify and select said first event manager from a plurality of event managers, wherein said first event manager is identified as being configured to detect events of a type corresponding to said first event; and  
identify and select said first action handler from a plurality of action handlers, wherein said first action handler is identified as being configured to initiate actions of a type corresponding to said first action.



5. (Original) The system of claim 1 wherein at least a portion of said events are associated with a broadcast signal.
6. (Original) The system of claim 3 wherein said event broker, said one or more event managers and said one or more action handlers comprise library extensions accessible by an operating system executing in said receiver.
7. (Previously Presented) The system of claim 1 wherein said event broker is configured to store in non-volatile storage said event bookings from a plurality of distinct clients.
8. (Original) The system of claim 1 wherein said events corresponding to said event bookings comprise a plurality of distinct event types.
9. (Original) The system of claim 1 wherein said actions corresponding to said event bookings comprise a plurality of distinct action types.
10. (Cancelled).
11. (Original) The system of claim 1 wherein said event broker is configured to determine resources required by said actions and to resolve resource conflicts between said actions.
12. (Original) The system of claim 1 wherein said event broker is configured to maintain ranks corresponding to said event bookings and, if a plurality of said events have been detected, to initiate said corresponding actions in an order determined by said ranks.
13. (Previously Presented) The system of claim 1 wherein clients are configured to access event bookings which have been stored by the event broker, said access comprising a

query, a modification, or a termination of a stored event booking, and wherein said event broker is configured to control said access to said event bookings by clients based on permissions associated with said accesses and said event bookings.

14. (Previously Presented) The system of claim 7 wherein each of said stored event bookings has a corresponding expiration time and wherein said event broker is configured to unregister ones of said event bookings which have passed said expiration time.

15. (Previously Presented) A method for brokering and managing event bookings, said method comprising:

receiving a request from a client for an event booking at an event broker, wherein said request identifies a first event which may occur in the future and a first action to be taken upon occurrence of said first event;

registering said event booking request, wherein said event broker notifies a first event manager corresponding to said first event, and notifies a first action handler corresponding to said first action, wherein said event broker, said client, said first event manager, and said first action handler comprise distinct functional entities;

detecting said first event by said first event manager;

said first event manager notifying said event broker of said detection of said first event;

said event broker providing notification to said first action handler of said detection of said first event; and

initiating said first action by said first action handler in response to detecting said notification from said event broker;

wherein the request includes a description of the first event using a syntax which is unintelligible to the event broker, but which is intelligible to the first event manager, wherein subsequent to receiving notice of said event booking from said mechanism, said first event manager is configured to determine whether said event booking will be accepted by said first event manager, and provide a positive acknowledgement to said event broker in response to determining said event booking is accepted.

16. (Original) The method of claim 15 wherein said plurality of event bookings are registered in a central location.
17. (Original) The method of claim 15 wherein said events corresponding to said plurality of event bookings comprise a plurality of event types, wherein said event types are detected by a plurality of event managers.
18. (Previously Presented) The method of claim 15 wherein registering one of said booking events comprises storing in non-volatile storage information identifying one of said plurality of event managers which is configured to detect said corresponding event.
19. (Original) The method of claim 15 wherein said actions corresponding to said plurality of event bookings comprise a plurality of action types, wherein said action types are initiated by a plurality of action handlers.

20. (Previously Presented) The method of claim 19 wherein registering one of said booking events comprises storing in non-volatile storage information identifying one of said plurality of action handlers which is configured to initiate said corresponding action.

21. (Original) The method of claim 20 wherein said action is selected from the group consisting of: downloading an application; launching an application; launching a popup; and notifying a running application of said one of said events.

22. (Previously Presented) A device comprising:

- a signal receiver configured to receive a broadcast signal;
- a first event manager, wherein said first event manager is configured to detect particular types of events;
- a first action handler, wherein said first action handler is configured to initiate particular types of actions; and
- an event broker mechanism, wherein said mechanism is configured to:
  - receive a request for an event booking from a client, wherein said request identifies a first event which may occur in the future and a first action to be taken upon occurrence of said first event;
  - register said event booking request, wherein said event broker notifies said first event manager and said first action handler;

wherein each of said event broker mechanism, said client, said first event manager, and said first action handler comprise distinct functional entities;

wherein said first event manager is configured to detect said first event and notify said event broker of said detection of said first event; and

wherein said first action handler is configured to initiate said first action in response to receiving notice from said event broker that said first event has been detected;

wherein the request includes a description of the first event using a syntax which is unintelligible to the event broker mechanism, but which is intelligible to the first event manager, wherein subsequent to receiving notice of said event booking from said mechanism, said first event manager is configured to determine whether said event booking will be accepted by said first event manager, and provide a positive acknowledgement to said mechanism in response to determining said event booking is accepted.

23. (Original) The device of claim 22 wherein said device comprises an interactive television system receiver coupled to receive said broadcast signal from a broadcast station and configured to provide an output signal to a television.

24. (Previously Presented) The device of claim 22, wherein said event booking does not identify the first event manager, and wherein said event broker mechanism is further configured to:

identify from a plurality of event managers configured to detect different types of events an event manager which is configured to detect events of a type corresponding to the first event; and

register the identified event manager as the first event manager.

25. (Previously Presented) The device of claim 22, wherein said first event manager is not configured to communicate directly with said first action handler.

26. (Cancelled).

27. (Previously Presented) The device of claim 22, wherein said mechanism is further configured to:

receive an additional request for an event booking, wherein said additional request indicates a second action;  
register said additional event booking request;  
determine a resource conflict exists between said event booking request and said additional event booking request; and  
resolve said resource conflict.

28. (Previously Presented) The device of claim 22, wherein clients are configured to initiate accesses to event bookings which have been stored by the event broker mechanism, said accesses comprising a query, a modification, or a termination of a stored event booking, and wherein said mechanism is configured to control said accesses to said event bookings based on permissions associated with said accesses and said event bookings.

29. (Previously Presented) The device of claim 22, further comprising a non-volatile storage device, wherein the event broker mechanism is configured to store event bookings on said non-volatile storage device.

**IX. EVIDENCE APPENDIX**

No evidence submitted under 37 CFR §§ 1.130, 1.131 or 1.132 or otherwise entered by the Examiner is relied upon in this appeal.

**X.     RELATED PROCEEDINGS APPENDIX**

There are no related proceedings.